



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/019,899

12/31/2001

Hideo Kijima

1384-01

1003

35811

7590

06/28/2004

IP DEPARTMENT OF PIPER RUDNICK LLP  
ONE LIBERTY PLACE, SUITE 4900  
1650 MARKET ST  
PHILADELPHIA, PA 19103

EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT

PAPER NUMBER

3726

DATE MAILED: 06/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/019,899	<b>Applicant(s)</b> KIJIMA ET AL.	
	<b>Examiner</b> Marc Jimenez	<b>Art Unit</b> 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 6-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election of Group I, Species A, Claims 1-5 in the reply filed on 5/11/04 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. **Claims 6-12** are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 5/11/04.

### *Priority*

3. Acknowledgment is made of applicant's claim for foreign priority based on applications filed in Japan. It is noted, however, that applicant has not filed a certified copy of these applications as required by 35 U.S.C. 119(b).

### *Specification*

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of **50 to 150 words**. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because it should be directed to the elected product claims. Correction is required. See MPEP § 608.01(b).
6. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed (elected product claims).

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. **Claims 1 and 5/1** are rejected under 35 U.S.C. 102(a) as being anticipated by Yashihiro et al. (JP 2001-047112, see also translation cited in the PTO-892).

Yashihiro et al. teach a composite cemented carbide roll having a sleeve **11** comprising a cemented carbide outer layer formed integrally from a plurality of previously sintered (para [0009] of translation) cylindrical formed members **1** and an inner layer **3** made of a steel member (para [0016] of the translation) formed on the inner surface of the outer layer **1**, fixed through engagement with a steel arbor ([Claim 6] of translation); wherein the sleeve has a length within a range of from 520 to 6,000 mm (para [0016]).

9. **Claims 2 and 5/2** are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yashihiro et al.

Yashihiro et al. teach in [Claim 1] of the translation that “two or more” sleeves are made

Art Unit: 3726

which inherently covers the claimed range of 5 to 30.

Alternatively, it would have been obvious to one of ordinary skill in the art at the time of the invention, to have made the prior art at the claimed ranges, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Also, official notice is taken that it was well known in the art, at the time of the invention, to have used 5 to 30 formed members in order to create a sleeve having the desired length.

10. **Claims 3, 4, 5/3, and 5/4** are rejected under 35 U.S.C. 102(a) as anticipated by Yashihiro et al. or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yashihiro et al. in view of Applicant's Admitted Prior Art [AAPA] (page 2, lines 13-14 of applicant's specification).

Yashihiro et al. inherently teaches the claimed So/Si ratio because Yashihiro et al. teach using a cemented carbide as claimed. As stated in MPEP 2112.01, "When the structure recited in the reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent".

Alternatively, [AAPA] teaches using a ratio So/Si of from 0.3 to 20 (page 2, lines 13-14 of applicant's specification).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Yashihiro et al. with a ratio So/Si of from 0.3 to 20, in light of the teachings of [AAPA], in order to obtain the desired hardness of the formed members.

Regarding claim 4, it would have been obvious to one of ordinary skill in the art at the time of the invention, to have made the prior art at the claimed ranges, since it has been held that

where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. **Claims 1-5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. (4,961,261) in view of [AAPA] (fig. 11A-12B and pages 2-4).

Kojima et al. teach a composite cemented carbide roll having a sleeve comprising a cemented carbide outer layer 12 of previously sintered cylindrical formed members and an inner layer 18 made of a steel member formed on the inner surface of the outer layer 12, fixed through engagement with a steel arbor 20.

Kojima et al. teach the invention cited with the exception of the outer layer being formed integrally from a plurality of previously sintered cylindrical formed members and specifically teaching the length of the sleeve.

[AAPA] teaches an outer layer 7 in fig. 12A that is formed from a plurality of previously sintered cylindrical formed members (page 4, lines 4-5) and making the length of the sleeve from 520 to 6,000 mm (page 3, lines 13-15).

It would have been obvious to one of ordinary skill in the art, at the time of the invention,

Art Unit: 3726

to have provided the invention of Kojima et al. with the outer layer being formed from integrally from a plurality of previously sintered cylindrical formed members and specifically teaching the length of the width, in light of the teachings of [AAPA], in order to create a sleeve having the desired length.

Regarding claim 2, it would have been obvious to one of ordinary skill in the art at the time of the invention, to have made the prior art at the claimed ranges, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Also, official notice is taken that it was well known in the art, at the time of the invention, to have used 5 to 30 formed members in order to create a sleeve having the desired length.

Regarding claims 3 and 4, Kojima et al. inherently teaches the claimed So/Si ratio because Kojima et al. teach using a cemented carbide as claimed. As stated in MPEP 2112.01, “When the structure recited in the reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent”.

Alternatively, [AAPA] teaches using a ratio So/Si of from 0.3 to 20 (page 2, lines 13-14 of applicant’s specification).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Kojima et al. with a ratio So/Si of from 0.3 to 20, in light of the teachings of [AAPA], in order to obtain the desired hardness of the formed members.

Also, regarding claims 3 and 4, it would have been obvious to one of ordinary skill in the art at the time of the invention, to have made the prior art at the claimed ranges, since it has been

Art Unit: 3726

held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.


***Contact Information***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is (703) 306-5965. The examiner can normally be reached on Monday-Friday between 5:30 a.m.-2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Marc Jimenez  
Patent Examiner  
AU 3726



Application/Control Number: 10/019,899

Page 8

Art Unit: 3726

**MJ**

June 23, 2004